DIRECT TESTIMONY OF STEPHEN B. ALCOTT

D.T.E. 01- 42

PINEHILLS WATER COMPANY, INC.

Q. Please state your name and address.

A. Stephen B. Alcott, 44 Laurel Street, Somerville, Massachusetts.

Q. What is your occupation?

A. I am a professional engineer, practicing as an independent consultant under the business name Alcott Associates and specializing in utility rates and valuation.

Q. Please describe your educational training and involvement with professional associations.

A. I obtained a degree of Bachelor of Science in Civil Engineering from Tufts University, Medford, Massachusetts in 1968, and a degree of Juris Doctor from New England School of Law, Boston, Massachusetts, in 1974. I have been a Registered Professional Engineer in the State of Maine since 1974 (License No. 2957), and a member of the Bar of the Commonwealth of Massachusetts since 1975.

I am a member of the American Water Works Association, the New England Water Works Association, the National Society of Professional Engineers, the Society of Depreciation Professionals and the Massachusetts Bar Association. I am currently co-chairman of the New England Water Works Association Committee on Water Rates.

I attended the National Association of Regulatory Utility Commissioners' Annual Seminar on Water Utility Regulation. I have presented papers and participated in seminars on ratemaking matters before the Water Pollution Control Federation, the New England Chapter of the National Association of Water Companies, the Society of Depreciation Professionals, the Connecticut Water Works Association, the Public Utility Section of the New Hampshire Bar Association and the New England Water Works Association and I teach the "Basic Rate Design" segment of the Association's Seminar on Water Rates.

Q. Please describe your professional experience.

A. From 1968 to 1978, I was employed by Metcalf & Eddy Engineers as an Engineer and then Project Engineer, where my assignments included basic planning and design of

water, wastewater and combined overflow facilities, environmental assessments, valuation of utility property and the design of water and sewer rates and charges. I became in-house legal advisor in 1975.

From 1978 to 1989, I was employed by Coffin & Richardson as a Project Engineer and then as Assistant Vice President. My assignments concentrated on cost of service studies and the determination of water and sewer rates and charges. I also was in-house legal consultant on rate and valuation matters.

From 1989 to 1998, I was employed by Guastella Associates, Inc. as Senior Rate Engineer and then as Vice President. I was responsible for cost of service studies, the determination of water and sewer rates and charges, valuation studies and the performance of depreciation studies.

Since establishing Alcott Associates, Inc. in February, 1998, I have continued to concentrate in the areas of utility ratemaking and valuation.

Q. Have you previously testified in proceedings involving utility regulation?

A. Yes. I have testified on ratemaking matters before the following regulatory agencies:

Arkansas Public Service Commission

Connecticut Department of Public Utility Control

Delaware Public Service Commission

Indiana Utility Regulatory Commission

Maine Public Utilities Commission

Massachusetts Department of Public Utilities (now Department of

Telecommunications and Energy)

New Hampshire Public Utilities Commission

New Jersey Board of Public Utilities

New Mexico Public Utility Commission

New York State Department of Environmental Conservation

New York State Public Service Commission

Pennsylvania Public Utility Commission

I also have testified before Massachusetts Superior Courts regarding the acquisition of a water company and the value of water rights taken by eminent domain.

Q. Mr. Alcott, are you or your firm in any way connected with the Pinehills Water Company?

A. No, sir. I was retained as an independent consultant to assist the Pinehills Water Company ("Company") in preparing this application for initial rates.

Q. What were you asked to do?

A. I was engaged to provide professional services in connection with preparation of a possible water rate case to be submitted to the Massachusetts Department of Telecommunications & Energy (""DTE""). The Company has undertaken a 10 year phased plan for constructing a new water system. I was asked to analyze the costs of this undertaking and to prepare rates and charges for submission to the DTE. This included determination of the pro forma revenue requirement and estimates of pro forma sales, based on the 10-year development plan currently projected by the Company.

Q. Does the Company have any rates and charges currently in effect?

A. No sir. This application is requesting DTE to establish initial rates and charges.

Q. Are the rates proposed in the Company's filing, based on your rate design studies?

A. Yes.

Q. What data sources did you rely on for developing the proposed rates?

A. I relied primarily on the Company's 10 year plan for developing the new water system. The plan includes estimates for capital and operating costs required to provide water to the Company's service area over the 10 year development period, together with projections of customer growth and usage. The Company's projections are on a year by year basis. For developing the proposed initial rates, I have used the estimates for customer numbers and plant costs at build-out (year 10 of the development period) in accordance with DTE precedent, as discussed below.

Q. Have you prepared exhibits in support of the Company's application for new rates?

A. Yes. I have prepared and the Company has filed exhibits marked SBA-1 through SBA-3, including supporting Schedules and filed workpapers labeled WP-1 through WP-6. A detailed list of the exhibits, the supporting schedules and filed workpapers, is also included.

Q. Please describe the Company's proposed service area.

A. The Company will provide water service to a new residential and commercial community, called "The Pinehills", in currently undeveloped land in Plymouth,

Massachusetts, several miles away from the existing Town water system. The development plan provides for a maximum of 1,934 Limited Occupancy Community ("LOC") homes, 920 Planned Retirement homes, and 1,300,000 square feet of general commercial and retail buildings, including offices, hotels, conference centers, restaurants and 220,000 square feet of retail stores. In compliance with the Town's Open Space Mixed Use Development zoning overlay, more than two-thirds of the total area (over 3,000 acres) will be open space, including golf courses, roads and trails, agricultural uses and passive and active recreational uses. Please see the direct testimony of Deborah Sedares for a detailed description of The Pinehills development.

Q. How will the Company organize its operations?

A. As more fully described in the testimony of Deborah Sedares, the Company will own a portion of the water system and lease certain facilities from an affiliated company, Pine Springs Realty LLC ("Realty"). Plant funded through contributions in aid of construction ("CIAC") will be owned by the Company. This plant will generally comprise the distribution mains, hydrants, services and meters. Transmission mains, storage, pumping, treatment and source of supply facilities, will be leased from Realty. The Company will obtain management services from another affiliated company, PS Water Services LLC. And the Company will contract with third party providers for the normal operation and maintenance of the water system.

Q. Does the Company currently have any customers?

A. No, there are currently no occupied dwellings. Water is available at several model homes and at the office the Company shares with the developer of the Pinehills community. The first full time occupancies are not expected until around Memorial Day.

Q. How many customers have you estimated will be connected to the water system by the end of 2001?

A. The development plan projects annual lot development, starting with 85 in 2001. For calculating revenues over the 10 year development period, I have assumed that actual occupancy will occur over three years following. For 2001 I have estimated 17 customers to be on line. Supporting Workpaper WP-2 summarizes the projected growth in customers, as used in the rate calculations.

Q. Is the process for determining initial rates and charges different from the process required to support a request to increase existing rates?

A. Yes. In general, a request for initial rates, has little or no historic data on which to base proposed rates and rate determinations must rely on cost estimates and estimated customer sales, to a greater extent than applications to increase existing rates. In the latter cases, proposed increases often range between 15% and 30%. This means that between 70% and 85% of the proposed revenue requirement is supported with actual historic data. The balance is supported by an analysis of "known and measurable" changes to the existing cost data. These circumstances allow relatively precise cost determinations on which to base the proposed rate increase.

Q. What approach have you adopted to develop the cost basis for the rates in this case?

A. Although a substantial investment (approximately $4 million to date) has been made, water company operations are just beginning. There are no present revenues and only partial costs. The Company presently has no paying customers. Furthermore, the revenues anticipated over the next several years represent only a small portion of the water service revenues that will be generated when the total planned development is complete. Therefore, for the purpose of calculating proposed rates, we have modeled costs, revenues and customer numbers at buildout. The Department has approved a similar approach in other cases, such as Plymouth Water Company (formerly Pond Properties), D.P.U. 91-254 (1992); and Glacial Lake Charles Aquifer Water Company, D.P.U. 88-197 (1989).

Q. What is the test year for the Company's filing?

A. The rates are based on pro forma costs as estimated at build-out, which is projected to be 2010. Current expenditures for the twelve months ended December 31, 2000, are also shown on the exhibits.

Q. Why is it reasonable to base initial rates on the 10 year buildout?

A. As recognized by the Department in the Glacial Lake order, unless this "full, buildout" approach is used, early customers will be unduly burdened by high rates. The development is currently planned to be phased in over about 10 years. The full water system will not be completed until then, nor will all projected customers be on line until the end of the project build-out. While limited numbers of customers will take service over the first few years, substantial portions of the water system must be built to serve them. Efficiency requires many facilities, such as the wells and certain trunk-line pipes, constructed now, to be able to handle the full customer load at build-out. With almost 3,000 customers anticipated at buildout, it clearly is unreasonable to require the initial few to carry the full cost of present construction. My Workpaper WP-6, shows that the cost to serve customers in the early years would be unreasonably high if traditional ratemaking approaches were used. Indeed, no one would build a multi-million dollar water distribution system for only a few dozen customers. Therefore, the proposed rates have been designed based on total build-out conditions. The costs, as well as the number of customers and volume of metered consumption, are necessarily estimated, however, they have a fairly certain basis, in that the project development plans have been the subject of very significant financing, permitting, and contractual commitments. Also, costs are in present day dollars and have not been adjusted for inflation. In my opinion, this approach is practical, will clearly not over charge customers and should provide the Company adequate compensation for its investment, assuming that rates in the future are established in a consistent manner.

Q. Why not use a closer time period than the 10 year buildout?

A. First, it is just as accurate to estimate costs at full buildout as it is to estimate costs at any other point in the development period, because we are using current dollars for all of the costs, both capital and operating costs. We are not trying to estimate inflation. The cost estimates prepared for plan year 10 are just as accurate as for earlier years. Second, using any year sooner than buildout would

dramatically increase the per customer costs, as described elsewhere in this testimony.

Q. In your opinion, do the rates proposed in this case meet DTE requirement that costs be sufficiently "known and measurable"?

A. Yes, based on my review of the construction plan, the cost basis for the proposed rates is a reasonable basis for establishing initial rates for this Company.

Q. What would have resulted if you followed the traditional approach to setting rates?

A. The average rates over the first three years would need to be 3 times the proposed rates. From the third through the fifth years of the planned development, rates would need to twice the proposed rates. A more detailed analysis of the potential impacts is shown on Supporting Workpaper WP-6.

Q. How do the proposed rates compare with water charges in general?

A. Estimated charges for metered water service under the proposed rates for the average single occupancy residence is approximately $400, and approximately $500 per year for a double occupancy. Recent data indicates that customers in the Eastern Massachusetts area, pay between $200 per year to $300 per year, for water service. Pinehills customers will also receive public fire protection. The proposed annual charge for public fire protection is $160 per residence. In many towns, fire protection, if provided, is generally paid for through property taxes. However, comparing rates between different utilities needs to be done carefully. Numerous factors affect water charges. For instance, how much of the total cost is actually covered by the water rates? In some communities capital costs are covered through property taxes. Other communities may carry health and other employee benefits under the general fund budget rather than as a cost of the water department. In contrast, the Company's rates must carry the full cost of water service, which fact can distort any comparisons. There also can be significant differences due to when the water facilities were constructed. Rates for older systems may appear cheaper because the construction costs are numerically much less than they would be at today's prices.

Q. The Company is proposing to lease a significant portion of the facilities needed to provide water service, ultimately about 50% of such facilities at buildout. Please explain how this impacts the proposed rates.

A. From one point of view, the lease has no impact on the proposed rates. Whether the plant is owned directly by the water company or leased as proposed from the affiliate, Pine Springs Realty LLC, the calculation I am proposing for initial rates would be the same. All of the elements to be included in the pro forma revenue, O&M expenses, property and income taxes, depreciation and return on rate base, would all be the same. From this point of view, the impact of the Department's decision on ratepayers in this case, would not change.

However, from another point of view, the proposed lease arrangement allows rates to be stabilized over the 10-year development period. As described above, without some

innovative efforts, rates (particularly in the early years) would be much higher than we now propose. Establishment of a brand new water system and company obviously involves significant up front capital costs and carrying costs. The lease arrangement effectively allows these costs to be spread out. Of course, this only works to the extent lease charges are recognized and allowed in rates over the entire lease period. Another purpose of the lease arrangement is to provide a mechanism for properly tracking those costs, to allow the Department to review those costs in the future and to give the Company the opportunity to receive fair compensation for its investment.

Q. Has the Department considered similar arrangements for other water utilities?

A. Yes. The Department has recognized the severe rate impacts large capital investments have on ratepayers in several cases. Most recently, for the Department approved a special purpose lease for Massachusetts-American Water Company. The Department also approved a life-cycle analysis for pre-approved rates for the Salisbury Water Supply Company. For both of these companies, the essential element was to normalize the capital cost over time. Under a traditional rate base approach, the cost of capital begins high and decreases, eventually to zero. Thus, with that approach, ratepayers in the early years may unfairly subsidize future customers.

Q. What overall return on rate base have you used in preparing the proposed rates?

A. The Company is planning a capital structure of 50% debt and 50% equity. Although permanent debt financing may not be issued for some time, the Company proposes a debt cost of 10% and a return on equity of 11.5%, based on the Department's standard procedures, and the Department's optional formula for return on equity for water companies, for a proposed overall return on rate base of 10.75%.

Q. If the Department approves the proposed rates, and actual costs and revenues occur as estimated in your rate calculations, will the Company realize this return in the foreseeable future?

A. No, the theoretical return on rate base will not exceed 10.75% for many years. And since actual costs are subject to inflation, the actual return would be lower still.

Q. In your opinion, are the proposed rates sufficient to cover the foreseeable costs of providing water service?

A. Theoretically, yes. If the Department approves the proposed rates, and actual costs and revenues occur as estimated, the Company would eventually recover its costs. However, as a practical matter actual conditions, in addition to inflation, will probably require rate adjustments prior to 2010. Sales of homes and therefore actual revenues, may not occur as planned. And costs may also change, as changes in design of facilities, as well as the timing of construction, may be required.

Q. In your opinion, are the proposed rates are fair to ratepayers?

A. Yes, because each ratepayer is paying no more and no less, than his or her share of the current dollar cost of a completed, fully utilized system.

Q. You have submitted three exhibits. Which of your exhibits directly support the proposed rates?

A. The basis for the proposed initial rates is set forth in the first two exhibits. Exhibit SBA-1 summarizes the rate design calculations and describes the resulting proposed rates, estimated revenues and typical customer bills. Exhibit SBA-2 summarizes the development of the total cost (i.e. proposed revenue requirement), at buildout, including the estimated operating expenses, rate base and investment by type of plant. These exhibits present existing costs for the year ended 12/31/2000 and at buildout.

Q. What does the third exhibit present?

A. Exhibit SBA-3 summarizes the estimated facility lease payments. This exhibit, and its supporting workpapers, present data, estimated for the ten year construction plan.

Q. I see that you have calculated the basic rent under the facility lease on a volumetric or a per gallon basis. Did you consider other methods to structure the rental charges?

A. Yes. We considered a two part structure for charges under the Facilities Lease composed of a volumetric rate and a per customer charge. This alternative would more closely match the revenues received by the Company and the lease rental charges due to Realty. The Company is still evaluating this alternative. Whichever method is finally adopted in the lease, the estimated payments described in Exhibit SBA-3, would be essentially the same.

Q. Please describe Exhibit SBA-1 and its supporting schedules.

A. Exhibit SBA-1 consists of one page and sets forth the proposed rates and charges. Three types of charges are proposed. For metered service, the Company is proposing a base charge per quarter plus a volumetric rate per 1000 gallons metered consumption. The base charge would vary by meter size, with a quarterly charge of $40 for a 5/8" meter. The proposed volumetric charge is $8 per 1000 gallons.

For fire protection service, the Company is proposing a quarterly charge of $40 applicable to all customers for "public" fire protection service plus charges based on size of connection for private fire protection service.

The Company is also proposing a one-time fee to be charged when a new service is connected to the water system to cover inspection of customer service lines and meter installations and other costs of establishing new accounts. This charge also varies by meter size, starting with $350 for a 5/8" meter connection.

Schedule 1 of Exhibit SBA-1, consists of one page and sets forth the estimated revenue yield from the proposed rates for metered service and fire protection

service. The revenue from new service connection fees is non-recurring, and not shown on Schedule 1. The estimated revenue over planned development is shown on Supporting Workpaper WP-5.

Schedule 2 of Exhibit SBA-1, consists of one page and sets forth typical customer bills at proposed rates for metered service.

Schedule 3 of Exhibit SBA-1, consists of two pages and summarizes the six (6) steps followed in designing the proposed rates. Additional details regarding fire protection customer data is provided on Supporting Workpaper WP-1.

Q. Please describe the six rate design steps summarized on Schedule 3 of Exhibit SBA-1.

A. In Step One the total revenue required from rates is allocated between Fire Protection Service and General Metered Service.

In Step Two, basic service charges are design based on 25% of the metered service cost. These charges are ratcheted by meter size based on meter capacity ratios.

The volumetric rate is designed in Step Three, based on 75% of the metered service cost.

In Step Four, the cost allocated to Fire Protection Service is further allocated between public and private fire protection.

Steps Five and Six calculate the proposed public and private fire charges, respectively.

Q. Please describe Exhibit SBA-2.

A. Exhibit SBA-2 consists of one page and sets forth the proposed revenue requirement. Costs are shown as "direct expenses" and as "cost of leased plant". Direct Company costs include O&M expenses and property taxes. Leased plant costs include depreciation of plant in service, income taxes and a return on rate base (i.e. the facilities leased to the Company).

Q. Does the calculation of depreciation expense comply with the Department's policy regarding depreciation of contributed plant?

A. Yes, it does. I have not applied depreciation to any contributed plant. However, lease costs include a depreciation component with respect to plant costs incurred by Realty. I have used accrual rates by relevant plant types, based on the National Association of Regulatory Utility Commissioners depreciation practices manual.

Q. Please describe the supporting schedules for Exhibit SBA-2.

A. Schedule 1 of Exhibit SBA-2, consists of one page and sets forth operating expenses estimated at buildout.

Schedule 2 consists of one page and summarizes the calculation of estimated property taxes.

Schedule 3 consists of one page and sets forth the estimated depreciation.

Schedule 4 consists of one page and sets forth pro forma income taxes based on federal tax and the applicable state franchise rates.

Schedule 5 consists of one page and sets forth the pro forma rate base, capital structure and proposed cost of capital.

Schedule 6 consists of one page and sets forth the estimated plant in service.

As indicated previously, all of these schedules are based on the planned development at buildout.

Q. Does this complete your testimony at this time.

A. Yes, it does.

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DIRECT TESTIMONY

OF

STEPHEN B. ALCOTT

IN THE MATTER OF RATES FILED BY

PINEHILLS WATER COMPANY, INC.

D.T.E. 01- 42

COMMONWEALTH OF MASSACHUSETTS